PARENTAL PARTICIPATION IN SPEECH AND LANGUAGE THERAPY

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PARENTAL PARTICIPATION IN SPEECH AND

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CHAPTER I

INTRODUCTION

Parental involvement and participation is strongly encouraged in the treatment of a variety of communication disorders. Parental involvement was originally defined by the government in the Elementary and Secondary Education Act (1962) and redefined by the No Child Left Behind Act (2002) as:

> The participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities, including ensuring—that parents play an integral role in assisting their child's learning; that parents are encouraged to be actively involved in their child's education at school; that parents are full partners in their child's education and are included, as appropriate, in decision-making and on advisory committees to assist in the education of their child; and that other activities are carried out, such as those described in section 1118 of the ESEA (Parental Involvement). (NCLB 2004, 2002; ESEA 1962).

In recent years, parental involvement has been an added focus in the communication disorders literature and the clinical setting in speech-language pathology

due to laws such as the Individuals with Disabilities Education Improvement Act (IDEIA) which was enacted by the United States Congress in 2004. The changes in legislation have strongly encouraged a change from the therapist-centered approach, where the speech-language pathologist decides the best course of treatment for the child, to the family-centered approach, where the family is considered part of the clinical unit and is central to the treatment of the child and is involved in all aspects of therapy. As clinicians move toward family-centered practice, it is important that clinicians understand the level of involvement that a parent is willing and able to put forth.

CHAPTER II

REVIEW OF LITERATURE

Speech-language pathologists utilize a variety of methods to encourage parental involvement in their child's therapy sessions. The parents can be involved both in the clinical setting and at home. The most frequent method speech-language pathologists use to include parents is sending a home program with the child, which may include items such as worksheets or flashcards for the parent to review with the child (Pappas, McLeod, McAllister, & McKinnon, 2008). Other methods, such as parental observation, parent led therapy, and parent training, are utilized far less by clinicians (Pappas et al., 2008). Evidence suggests that these methods are extremely beneficial for the child and would increase the positives outcomes of therapy (Sommers, 1962; Fudala, England, & Ganoung, 1972).

Disorder Specific Programs:

A variety of disorder specific programs utilize parental involvement as an essential part of therapy. Early language intervention programs, such as the Hanen Program, use caregiver training as the main source of therapy. The Hanen Program requires caregivers to attend a minimum of 16 hours of training (McCauley and Fey, 2006; Hanen Centre, 2007). Augmentative/alternative communication is also an area of

therapy which requires intensive work with parents in order to be successful. Bruno and Dribbon (1998) found that parents who participated in a parental training program had more positive perceptions of their ability to interact with their child.

Stuttering intervention for children frequently includes parental involvement and training. An example of this can be found in the Lidcombe Program-- a parent implemented behavioral approach for treatment of early stuttering. The program requires parents to attend weekly sessions with their child to learn response-contingent methods to interact with their child at home (Onslow, Packman, & Harrison, 2003; Manning, 2010). Hayhow (2009) examined the parental perspectives of the Lidcombe Program and found that parental experiences and child progress were intimately linked. Parents who reported good experiences with the Lidcombe program had children who made progress in their stuttering treatment. Hayhow demonstrated the unique point of view that parents provide as to the treatment and their involvement in their child's speech-language therapy.

The existence of these disorder-specific programs demonstrates that successful partnerships between parents and clinicians can take place. This study will investigate the partnership that exists between parents and graduate clinicians in a university clinic setting where a variety of speech and language disorders are treated. Despite the increased emphasis on family-centered practice and the demonstration of successful partnerships between clinicians and parents in certain treatment settings, there remains little research regarding the parental involvement and expectations within clinical settings.

Effects of Parental Involvement:

There are tangible benefits of parental participation in speech-language treatment. Research has shown that parental involvement increases intervention outcomes particularly in relation to the level of gain that may be experienced by the child in speech-language therapy (Sommers, 1962; Frudala, et al., 1972; Bush & Bonachea, 1973). These studies are positive indicators that parents can be utilized as an effective tool in therapeutic intervention. Sommers (1962) looked at the effects that training mothers to aid in therapy had on the articulatory gains made by children during speech therapy in the public school setting. Following parental training, equal improvements were made whether the child was seen individually for 30 minutes or in a small group for 50 minutes. This suggests that parental training could be used to facilitate effective group therapy in schools by speech language pathologists. Sommers also found that the greatest improvement in child articulation occurred when parents were taught auditory discrimination skills to aid them in distinguishing between their child's correct and incorrect productions during administration of the home program. These results suggest that parental involvement in treatment could provide significant benefits to the speech language pathologist by increasing efficiency in both individual and group therapy settings.

In a study by Frudala, England and Ganoung (1972), children were randomly assigned to three different treatment groups for treatment of an articulation disorder. Groups differed in the amount of parental involvement within the therapy sessions. When the parents participated in the speech therapy session on a weekly or monthly basis, in addition to completing a home program, gains were two times greater than the gains of

children whose parents participated in the home program only. Parents who participated in training, as well as a home program, showed additional gains as reported by classroom teachers who completed questionnaires regarding parental attitudes and beliefs towards their children. Teachers reported that parents demonstrated beneficial changes in behavior. First, parents became more aware of their child as an individual, such that children were recognized as having individual strengths and weaknesses. Second, parents were less likely to compare their child to the child's peers. Third, parents who participated in speech and language therapy became more involved in the classroom. Parents who participated in therapy also reported benefits from participating in treatment. Parents reported that they felt more confident when they were addressing their child's speech problem during home programs. They also felt they were able to better recognize the impact that speech has on other aspects of their child's life. Both parents and teachers reported changes in the children whose parents were involved in therapy. It was reported by Frudala, et al. that these children showed more interest in school and made more rapid gains in the areas of reading and spelling.

These studies indicate that children may have improved language gains as a result of parental involvement in speech-language therapy. It has also been documented that speech-language clinicians understand the benefit of including parents in treatment sessions. However, it should be noted that these studies are limited in scope and that additional research is needed to ascertain the influence of parental involvement in language treatment.

The Professionals Point of View:

Recent research has looked at graduate students' experiences as well as current speech-language pathologists' experiences in involving parents in treatment. In a study completed by Justice and Ezell (2001) investigating the perceptions and practices of graduate students towards parental involvement, researchers found that students rated parental involvement as being highly important for improvement in therapy effectiveness. While students reportedly understood the importance of including parents during intervention, students stated that they did not feel as though they had received the training necessary to effectively interact with parents. Most students reported that additional training was needed in the area of parent counseling, particularly when working with uncooperative parents and speaking with parents about children's behavioral issues. Students also felt as though more training on strategies to include parents in therapy would be beneficial. The need for additional training of speech-language pathologists in the areas of parental involvement can also be observed when looking at the views of current speech-language pathologists.

Pappas and colleagues (2008) reported that licensed speech-language pathologists also understand the value of parental involvement in children's speech-language treatment. Speech-language pathologists reported that the home program was the most likely method to gain involvement. Clinicians participating in the study, however, stated that when creating goals they were more likely to maintain control over the direction of therapy. Thirty-eight percent of speech-language pathologists allowed parents to make the final decision regarding goals for their child, indicating that some SLPs are retaining the idea of the therapist-centered approach. Ninety-eight percent of speech-language

pathologists recognized that parental involvement is essential for effective therapy. Yet the results from Pappas indicated that far fewer speech language pathologists are actually involving parents in the planning and execution of therapy services. The findings from this study highlight the need for further investigation of ways to involve parents at multiple levels of treatment within the planning and administration of treatment.

Additional Factors:

Research has been completed in other domains in the area of parental involvement. Baine, Rosenbaum, and King (1995) investigated the aspects of care giving that parents most valued in the care for their chronically ill child. This study identified 22 components of care which parents individually rated on a Likert scale. Next, parents ranked each component against the other 21 components. In the Likert scale rating, it was reported that parents scored parental involvement in the top two ratings approximately 95% of the time. Furthermore when ranked among the other 21 components of care, parental involvement was ranked in the top 6 out of 22 components of child care by 35% of responders. Other aspects of parental involvement were also ranked highly such as use of a family-centered approach, professionals being accessible and available, professionals giving advice on development, and availability of emotional support. The consistently high ranking of these different aspects of parental involvement suggest that parents want a positive and constructive relationship with professionals who provide care for their children. This study indicates that parental involvement is an important aspect across fields.

It is hypothesized that a variety of factors will influence parental involvement including parents' level of education, child's diagnosis, length of time in treatment, and age of child in therapy services. There is a lack of research in the area of parental involvement in the field of speech-language pathology. As such, the goal of this study is to provide speech-language pathologists with information that may help them increase the amount of parental involvement in the treatment process. The first research question addresses the relationship between parental involvement and child, parent, and family predictors. Child predictors that are investigated in this study include child's age, child's diagnosis, and length of time in therapy. Parental level predictors include parent education level and the setting in which the parent is interacting with the child. Family level predictors include the number of children in the family and the number of children receiving speech-language services.

Research Questions:

This study examined the contexts and environment in which parents are more likely to report participation. For example, questions regarding contexts included aspects such as being involved in creating therapy goals compared to participating in therapy. Questions regarding environments in which the parent is more likely to participate compared clinical versus home involvement. Therefore, the research questions for this study were as follows:

1) Is there a relation between individual differences on self ratings of parental involvement in treatment and other possible child level predictors, such as child's age, and length of time in therapy; a parental level predictor, such as

parent education level; and family level predictors, such as the number of children in the family and the number of children receiving speech-language services?

2) Is there a difference in how parents rate the frequency of clinician initiated and parent initiated conversations regarding their child's speech-language therapy?
3) Are there differences in the levels of self-rated parent participation in speech and language treatment based upon the type of participation (i.e., participation in goals versus participating in therapy) and the place of participation (i.e., participation in the clinic versus participation in the home)?
4) Based upon the place of participation (i.e., participation in the clinic versus participation in the home), do parents engage in different levels of participation (i.e., daily, weekly, monthly)?

It is hoped that outcomes from this study will provide needed information and insight into factors that affect parental involvement.

CHAPTER III

METHODOLOGY

The purpose of this study was to explore the relationships between parental involvement and possible factors that may affect parental involvement. The study was conducted as a questionnaire given to parents to assess their views of their involvement.

The specific research questions addressed were as follows:

1) Is there a relation between individual differences on self ratings of parental involvement in treatment and other possible child level predictors, such as child's age, and length of time in therapy; a parental level predictor, such as parent education level; and family level predictors, such as the number of children in the family and the number of children receiving speech-language services?
2) Is there a difference in how parents rate clinician initiated and parent initiated conversations regarding their child's speech-language therapy?
3) Are there differences in the levels of self-rated parent participation in speech and language treatment based upon the type of participation (i.e., participation in goals versus participating in therapy) and the place of participation (i.e., participation in the clinic versus participation in the home)?

4) Based upon the place of participation (i.e., participation in the clinic versus participation in the home), do parents engage in different levels of participation (i.e., daily, weekly, monthly)?

Subjects

Fifteen parent participants were recruited from the Oklahoma State University Speech- Language-Hearing Clinic. For the purpose of this study, a parent was defined as the mother or father of the child in speech-language therapy. The age of the child in speech-language therapy ranged from 4 years to 8 years with a mean of 6 years, 4 months (SD= 1 year 4 months). Children in this age range were of particular interest in this study for several reasons. First, little is known about factors that influence their participation in treatment. Second, it was hypothesized that parents and children within this age range will have similar time constraints on speech-language therapy and home practice due to school and extracurricular activities. Third, children in this age range are considered school-aged. Therefore, children in this age range make up a large population of children that are treated by school-based speech-language pathologists.

In order to participate in this study, participants met the following criteria:

- Parents of children who are currently receiving speech or language services.
- Parents will have children between the ages of 4 and 12 years-old.
- Parents of children who have been receiving treatment from the Oklahoma State University Speech-Language-Hearing clinic for at least 6 months.

The focus of this study was centered on families who are currently receiving treatment. As such, the guidelines were chosen to homogenize the population in matters

of their knowledge on their parental involvement and age of the children. Parents who participated in this study had children who had been receiving treatment from 6 to 96 months (mean = 43.3 SD = 26.6). Parents of children currently receiving treatment were targeted for this study because it was believed that parents currently involved in treatment would be able to provide the most information about their level of involvement. Also, participants were required to have children who had attended speech-language therapy for a minimum period of six months. It was hoped that after participating in treatment for six months participants would have attended at least one parent conference with their student clinician and clinic supervisor. It was also thought that the six month period would have provided the parents with opportunities to engage with their child's speech-language clinician in a way that might provide useful information regarding successful or unsuccessful parent/clinician interactions. Table 1 contains means, standard deviations, and ranges for participant information.

Table 1: Participant Information

	Minimum	*Maximum*	*Mean*	*SD*
Age of Children	4;0	8;0	6.4	1.35
Length of Time in Therapy (in months)	6	96	43.27	26.577
Number of Children in Therapy	1	3	1.40	.632
Number of Children in Home	1	4	2.40	.91

Procedures:

Fifteen parents participated in the study. Each questionnaire was filled out by the parent who primarily brought the child to speech-language therapy. This included 14 mothers and 1 father. Interviews were conducted by the author or the thesis advisor at the Oklahoma State Speech-Language-Hearing Clinic in Stillwater, Oklahoma. The researchers administered the parent questionnaire to the parent in a therapy room in the

Oklahoma State Speech-Language-Hearing Clinic and, on one occasion at the participant's office at her place of business.

During the interview, parents were read the consent and authorization form. This form explained the procedures of the research study and the rights of the participant. Once consent from the participant was received, the researcher continued by introducing the questionnaire. The parent questionnaire was created for the purpose of this study. It was used to examine varying levels of parent interaction and involvement. First, it was used to look at the type of interactions between the parent and the clinician. These include whether the clinician approaches the parent and provides an explanation of goals and intervention or whether the parent approaches the clinician and provides input regarding goals and intervention. Second, the type of input the parent provided their children was examined. For example, whether the parent provided input in the creation of goals or the parent was involved in treatment either at home or in the treatment session. Third, the questionnaire was used to examine the environment in which parents were involved with speech-language therapy. Places where the parents may be involved that were examined in this study included the home or the clinical setting. Fourth, the questionnaire looked at the frequency of parental involvement both in the clinic and at home. Frequency was examined in terms of daily, weekly, monthly or once a semester involvement. Table 2 provides an outline of the subscales of the questionnaire.

Table 2: Parental Questionnaire—Categories of Questions

Parental Interaction	Variables
1. Type of interaction with Clinician	a. Clinician approaches the parent and provides an explanation of goals and intervention b. Parent approaches the clinician and provides input regarding goals and intervention
2. Type of input provided by the parent	a. Work at home b. Complete assignments at home c. Work during sessions
3. Frequency of parental involvement a. In clinic b. At home	a. Daily involvement b. Weekly involvement c. Monthly involvement

The questionnaire utilized a visual analog scale (VAS; Aitken, 1969; Tanner, et al., 2004; Davey, et al., 2006). The visual analog scale was presented as a 10 centimeter line anchored on either end by opposing viewpoints (i.e. Almost Always or Never). Participants were instructed to make a vertical line at a point anywhere on the line that they felt would best represent their agreement with the statement. Statements were presented visually and auditorally to the parent. Once the questionnaire was completed, ratings were converted to a numerical score based on a ten point scale. Interrater reliability was calculated on twenty percent of the calculations to ensure adequate reliability in calculating the scores. This was accomplished by having a second researcher convert numerical scores for twenty percent of the responses.

CHAPTER IV

RESULTS

This study explored variables that may be related to parental involvement in children's speech and language treatment. A questionnaire was created to gather information from parents concerning their involvement in the child's speech language treatment. The study addressed the following questions:

Question 1:

Is there a relation between individual differences on self ratings of parental involvement in treatment and other possible child level predictors, such as child's age, and length of time in therapy; a parental level predictor, such as parent education level; and family level predictors, such as the number of children in the family and the number of children receiving speech-language services?

A Pearson correlation analysis was conducted to assess the relationship between parental self ratings and possible predictors of parent involvement in children's speech-language services. Child, parent, and family level predictor items from the Parent Involvement Questionnaire were examined. Table 3 contains the results for a Pearson correlation analysis for between child, parent and family level predictors and parental involvement in speech-language treatment.

Table 3 Correlations between Child, Parent and Family level Predictors and Parental Involvement in Speech-Language Treatment

	1	2	3	4	5
1 Child's Age	1				
2 Caregiver Education Level	.47	1			
3 Time in therapy	.83**	.56*	1		
4 NC: In Parent's care	.44	-.01	.25	1	
5 NC: In treatment	.05	.28	.16	.32	1
6 IIT: Parent approaches	.33	.56*	.26	-.16	-.43
7 IIT: Clinician	.23	.39	.15	-.40	-.11
8 PIT: In Session	-.11	-.01	.11	-.24	-.38
9 PIT: At Home	.14	.76*	.08	-.15	-.07
10 PIT: In Assignments	-.32	-.05	-.50	.03	-.42
11 POI: Clinic	-.17	.16	.07	-.34	-.32
12 POI: Home	-.17	.24	-.32	.01	-.33
13 TS: Daily	-.17	-.05	.04	-.24	-.33
14 TS: Weekly	-.10	-.01	.13	-.24	-.41
15 TS: Monthly	-.07	.02	.17	-.22	-.38
16 H: Daily	.10	.58*	-.01	-.29	-.31
17 H: Weekly	.13	.76**	.06	-.03	-.01
18 H: Monthly	.13	.74**	.20	.02	.26

**significant at .05 (2-tailed test), **significant at .01 (2-tailed test) NC=Number of Children in Parent's Care; IIT=Interaction Initiation Type; PIT=Parental Input Type; POI=Place of Involvement; TS=Participate in Therapy Session; and H= Participate at Home.*

The child level predictors, such as child's age and length of time in therapy had no significant correlations with parental involvement. Child's age was significantly correlated with the length of time a child spent in therapy, which was to be expected. The parent level predictor of parent education level was correlated at a significance level of .01 with parental input in the home (.76), and working weekly (.76) and monthly (.74) with the child at home. Parent education level was also correlated at a significance level of .05 with the time the child has been in therapy (.56), parent interaction initiation (.56), and working daily with the child at home (.58). Family level predictors such as the number of children in the parents care and the number of children receiving speech language services were not significantly correlated with parental involvement.

Table 4 shows the Pearson Correlation analysis between the four subtypes of parental interaction in speech language treatment. The first subtype of parental

involvement was interaction initiation type. This was examined by having parents rate the frequency with which they initiated interactions with their child's speech-language clinician. Parent interaction initiation was correlated with clinician interaction initiation (.85), parental input at home (.65), and working with the child weekly at home (.66) at a significance level of .01. Parent interaction initiation was also correlated with working with the child daily at home (.52) at a significance level of.05. Clinician interaction initiation was correlated with parental input at home (.52) and working with the child daily at home (.61) at a significance level of .05.

Table 4: Correlations between types of parental interaction in speech-language treatment

	1	2	3	4	5	6	7	8	9	10	11	12
1 IIT: Parent	1											
2 IIT: Clinician	.85**	1										
3 PIT: Session	.37	.41	1									
4 PIT: Home	.65**	.52*	.15	1								
5 PIT: Assign.	.24	.11	-.04	.39	1							
6 POI: Clinic	.47	.50	.95**	.33	.01	1						
7 POI: Home	.41	.26	-.02	.66**	.93**	.09	1					
8 TS: Daily	.32	.38	.99**	.14	-.03	.95**	-.01	1				
9 TS: Weekly	.40	.43	.99**	.16	-.02	.95**	.01	.98**	1			
10 TS: Monthly	.40	.42	.99**	.15	-.08	.94**	-.04	.97**	.99**	1		
11 H: Daily	.61*	.61*	.17	.87**	.43	.31	.62*	.17	.20	.15	1	
12 H: Weekly	.66**	.44	.05	.96**	.41	.24	.66**	.03	.06	.06	.72**	1
13 H: Monthly	.45	.28	.16	.84**	.16	.33	.44	.15	.16	.18	.48	.89**

**significant at .05 (2-tailed test), **significant at .01 (2-tailed test) IIT=Interaction Initiation Type; PIT=Parental Input Type; POI=Place of Involvement; TS=Participate in Therapy Session; and H= Participate at Home.*

The next subtype of parental involvement was the parental input type. This was examined by having the parent rate the frequency of their involvement during the therapy session, at home working with their child on speech-language therapy goals, or by participating in speech-language assignments provided by the clinician. Parent rated participation during the therapy session was significantly correlated with daily (.99), weekly (.99), and monthly (.99) participation at the .01 level.

Home parental input was examined by having the parent self rate the frequency of their involvement with their child at home on therapy goals and activities. Parental input at home was significantly correlated with daily (.87), weekly (.96), and monthly (.84) at the .01 level.

Question 2:

Is there a difference in how parents rate frequency of clinician initiated and parent initiated conversations regarding their child's speech-language therapy?

This question was looked at through the Parent Involvement Questionnaire by comparing the mean of questions related to interaction initiation type. Two forms of interaction initiation were analyzed: parent and clinician. A paired sample T-Test was used to address this question. There was no significant difference between the ratings of parents on parent and clinician interaction initiation. Table 5 provides means and standard deviations.

Table 5
Means and Standard Deviations of Interaction Initiation Type

Variable	*M*	*SD*
Parent	7.07	1.77
Clinician	7.30	1.80

Question 3:

Are there differences in the levels of self-rated parent participation in speech and language treatment based upon the type of participation (i.e., participation in goals versus participating in therapy) and the place of participation (i.e., participation in the clinic versus participation in the home)?

This question was addressed through the Parent Involvement Questionnaire. The questionnaire was utilized to group questions in relation to the type of participation or the place of participation. Questions that addressed similar types or places were grouped accordingly. Parent responses were gathered using a Visual Analog Scale. This scale was presented as a 10 centimeter line alongside each statement. Parents were instructed to mark a vertical line at the point that they felt would best represent their agreement with that statement (Tanner, et al., 2005).

A repeated-measures ANOVA with Huynh-Feldt correction was used to examine difference parental reports between ratings on parental input type. Parental input type was examined as whether the parent was providing input regarding speech-language treatment at home, in the therapy session, or in assignments. Results indicated that participants rated the three input types of parental input differently, $F(1.61, 22.5) = 15.12$, $p<.001$, $eta^2=.52$. Table 6 provides means and standard deviations of the parent responses.

Table 6
Means and Standard Deviations of the Parental Input Type

Variable	*M*	*SD*
In session	2.72	3.38
At home	7.79	1.51
In assignments	5.24	2.70

Question 4:

Based upon the place of participation (i.e., participation in the clinic versus participation in the home), do parent's engage in different levels of participation (i.e., daily, weekly, monthly)?

This question was addressed through the Parent Involvement Questionnaire. The questionnaire was utilized to group questions in relation to place of participation. Questions within the questionnaire addressed daily, weekly, and monthly participation in each setting. Parent responses were gathered using a Visual Analog Scale. This scale was presented as a 10 centimeter line alongside each statement. Parents were instructed to mark a vertical line at the point that they felt would best represent their agreement with that statement.

A repeated-measures ANOVA, with Huynh-Feldt correction, was conducted to examine differences in parental ratings on the frequency of parental involvement in the home, which parents rated on daily, weekly, and monthly intervals. Results indicated that there was a significant difference in how participants rated the three input frequency types, $F(1.14, 15.95) = 10.46$, $p=.004$, $eta^2=.43$. The means and standard deviations for the input types are presented in Table 7.

Table 7
Means and Standard Deviations of the Parental Involvement at Home

Variable	*M*	*SD*
Daily	6.79	2.21
Weekly	8.10	1.39
Monthly	8.49	1.51

A repeated-measures ANOVA with Huynh-Feldt correction, was conducted to examine differences in parental ratings on the frequency of parental involvement in the clinic, which parents rated on daily, weekly, and monthly intervals. Results indicated that there was a significant difference in how participants rated the three input frequency

types, F(1.26, 17.61) = .824, p=.403, eta^2=.06. The means and standard deviations for the input types are presented in Table 8.

Table 8
Means and Standard Deviations of the Parental Involvement in Clinic

Variable	*M*	*SD*
Daily	2.62	3.13
Weekly	2.70	3.50
Monthly	2.87	3.59

CHAPTER V

CONCLUSION

Parental involvement is an important area of speech-language therapy because it produces positive changes in both the outcomes of therapy and the attitudes about therapy (Sommers, 1962; Fudala, et al. 1972; Bush & Bonachea, 1973; Pappas, et al., 2008) Parental involvement often takes the form of home program and exercises (Pappas, et al. 2008).

This study explored parental ratings of involvement in speech-language therapy and possible variables that are related to parental involvement in therapy. The goal of this study was to provide speech-language pathologists with information that may help them to increase the amount of parental involvement in the treatment process. It was hypothesized that factors that possibly affect parental involvement could be identified through this study.

Question 1: Is there a relation between individual differences on self ratings of parental involvement in treatment and other possible child level predictors, such as child's age, and length of time in therapy; a parental level predictor, such as parent education level; and family level predictors, such as the number of children in the family

and the number of children receiving speech-language services?

Results from the Parent Involvement Questionnaire indicated that children's age and the length of time that the child had spent in therapy were significantly correlated. This indicated that the older a child was, the longer the child had been in therapy. This was expected as speech and language delays can persist as the child ages.

Parental education level was significantly correlated with the amount of time the child had been in therapy. This indicated that parents who have more education may be quicker to recognize speech and language delays.

Parental education level was also significantly correlated with interaction initiation type. For the purpose of this study, interaction initiation type was examined in two parts, parent and clinician. It examined how frequently the parent or the clinician initiated communication with the other. This was examined to look at how often the parent and clinician interacted in communication about the child's speech-language therapy. This correlation indicated that parents who have obtained more education are more likely to initiate communication with the clinician and also the clinician is more likely to initiate communication with the parent. Parents with more education are more likely to participate in communication with the clinician concerning their child's speech-language therapy goals. Clinicians may need to encourage more interactions with parents with lower education levels.

Parental education level was also significantly correlated with parental input at home, and working daily, weekly, and monthly with the child at home on speech-language therapy goals. This indicated that the more education that a parent has, the more

likely they are to be involved in the child's speech language therapy. This is an important aspect for speech-language pathologists to recognize as we interact with parents from varying socioeconomic backgrounds. Clinicians may need to encourage families with less education to participate more at home on speech-language therapy goals.

Question 2: Is there a difference in how parents rate the frequency of clinician initiated and parent initiated conversations regarding their child's speech-language therapy?

Results from the parental involvement questionnaire indicated that there is no significant difference between parent and clinician initiated interactions. Parents report that both parent and clinician initiated interactions are happening on a frequent basis, which theoretically is a good reflection on the field of speech-language pathology as it indicates open communication between the parent and clinician.

Question 3: Are there differences in the levels of self-rated parent participation in speech and language treatment based upon the type of participation (i.e., participation in goals versus participating in therapy) and the place of participation (i.e., participation in the clinic versus participation in the home)?

Results from the Parent Involvement Questionnaire indicate that parents are more likely to be participating in the home as compared to the clinical setting. Parents reported a significant difference between working with their child at home and in the clinic session. This indicates that parents perceive themselves as working with their child on therapy goals outside of speech-language therapy. However, parents did not report that they were participating in the actual speech-language therapy which could be a negative

indicator of the parent's ability to work with the child outside of the clinic room. Without the experience of working in a speech-language therapy session with the clinician, it is too difficult to ensure that the parent's perceptions of the speech-language therapy goals are in alignment with the clinician's perceptions. Clinicians need to recognize this possibility and take steps to ensure the parents' understanding of speech-language therapy goals.

Parents also reported that they were most likely to work with the child at home on therapy goals as compared to working on assignments provided by the clinician or working in the therapy session. This indicates that parents are directing their own home therapy program rather than completing a home program assigned by the clinician or working on goals and activities learned inside the therapy room. Clinicians need to support and teach the parents effective ways to work with their child to ensure that home practice is beneficial to the child's speech and language development.

Question 4: Based upon the place of participation (i.e., participation in the clinic versus participation in the home), do parents engage in different levels of participation (i.e., daily, weekly, monthly)?

Results from the Parent Involvement Questionnaire indicate that parents report a significant difference in home participation. Parents reported that in the home, they were more likely to work with their child on therapy goals on a weekly or monthly basis as compared to daily. This indicates that generally, home programming that focuses on daily home practice may be ineffective without additional support and understanding between the clinician and parent.

Parents reported that generally, they were not involved in the clinic on a daily, weekly, or monthly basis. This indicates that parents are not getting experience working with their child in a speech-language therapy session which could potentially aid in the effectiveness of home programming.

Clinical Implications

The correlations between parental education and parent involvement in the clinic indicate that parents who are more educated are more likely to seek and be active in speech-language services for their children. Therefore, clinicians need to be aware that socioeconomic status, particularly education level, may affect the involvement of parents in speech-language therapy services. As a result, clinicians may want to provide the support necessary to help parents understand and be involved in speech-language therapy. Support might include increased encouragement of the parent to interact and initiate communication with the clinician. An additional measure clinicians may consider is increased support and education on therapy goals and assignments for home practice. Understanding the link between parental education level and parental involvement in intervention should help clinicians to provide the necessary support to parents who are less likely to be involved in speech-language therapy.

Parents reported that they were involved at home significantly more often than in the clinic setting. Parents report that they are working at home on a weekly and monthly basis on speech-language therapy goals. However, low participation is noted on the daily level, indicating that on a day-to-day basis parents are not working with their child on

their speech-language therapy goals. This could be for a variety of reasons and more research is necessary to determine why. Clinicians should understand the limits on parents' time when designing home programming. Daily activities may not be successful as parents report that they are more likely to work with their child on a weekly or monthly basis. Clinicians could also work to create functional goals for the children that could be worked on outside of the therapy rooms. By finding functional goals, the clinicians and parents could work together to find ways to implement therapy during activities of daily living.

Parents reported that they were generally not involved in the clinic session on a daily, weekly, or monthly basis. This brings into question the parent's ability to work on therapy goals in the home setting. Clinicians need to provide parents with opportunities to learn and observe the speech-language pathologist's communication enhancing interactions with their child. Also, inviting parents into the clinic session allows speech-pathologists the opportunity to observe the parent's interactions with the child and provide feedback to the parent on ways to work with the child to make home programming more effective.

Limitations

This study was designed to look at the possible factors that may affect parental involvement. Limitations within this study include that only parents of children at a university speech-language clinic were recruited to participate. Although university clinic

settings are common throughout the field of speech-language pathology, they are not the only setting where parental participation may benefit speech-language outcomes.

Also, this study was designed to look specifically at involvement of the parent in speech-language therapy. Other caregivers were not included as part of the study. Important information could be gained from studying the involvement of other caregivers such as grandparents, stepparents, and others.

An additional limitation of this study is the Parent Involvement Questionnaire. This questionnaire was created for the purpose of this study. Accordingly, additional research is needed to assess the validity and reliability of the questionnaire. Additional research needs to be conducted on the validity and reliability of the questionnaire in order to ensure psychometric qualities of this questionnaire.

Future Directions

This study explored the relation between parental involvement and factors that might affect parental involvement in speech language therapy. The study was designed to provide pilot data regarding possible factors that might affect parental involvement. Parents who participated in this study were recruited from a university speech-language clinic. Speech-language pathologists work with a variety of populations. The school-age university private clinic setting population is a small piece of the field of speech-language pathology. Additional populations, such as school, outpatient, and private clinics, need to

be included in future research in order to give speech-language pathologists a complete picture of how parental involvement is affected across populations and settings.

Participants also need to be recruited for future research in parental involvement. The current research study only included 15 participants. More participants would increase the validity and generalizability of the results. By increasing the validity of the findings, we can be more confident that what we are looking at is what is truly occurring in the area of parental involvement.

Future research could also focus on additional factors that may affect parental involvement. Another aspect of interest that could be studied with parental involvement is parental expectations of treatment outcomes. Theoretically, there may be a link between the expectations of the parent and the involvement of the parent in speech-language therapy. It is hypothesized that if the parents have low expectation of speech-language therapy, then they are less likely to work with the child on speech-language therapy goals. Future research should look at this possible link and the effect that expectations have on parental involvement.

Also a study comparing the parents' views of their involvement in comparison to the speech-language pathologists' views of the parents' involvement could prove to be beneficial. Anecdotally, clinicians commonly commented on the lack of involvement of the parent, specifically with working on therapy goals at home. However, parents reported that they worked with their children on a weekly and monthly basis. Research should address this discrepancy and look at reasons why this discrepancy occurs. Further

research in the area of parental involvement would be beneficial to the clinician, parent, and child.

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APPENDIX A

PARENT INVOLVMENT QUESTIONNAIRE

Parent Involvement Questionnaire

1. How old is your child? _____
2. How old was your child when you first became concerned about their speech or language development?_____
3. How long has your child received speech or language services? _____
4. How long has your child received services from the OSU Speech-Language-Hearing Clinic?_____
5. Does your child receive speech or language services from an additional source (i.e., school speech-language pathologist, private clinician)? Yes/No

6. What is your highest level of education completed or received? If currently enrolled what is the highest level attended or degree received?

1- Some high school, no diploma
2- High school graduate, diploma, or GED
3- Some college, no degree
4- Bachelor's degree
5- Some graduate work
6- Graduate degree
99- Don't know

6. Please select from the following list the reason(s) that your child is receiving treatment.

Speech/Articulation *Language*

Reading/Writing *Autism*

Developmental Disability *I am unsure*

Other:_____

7. How many children do you have under your care?_____

If you have more than one child, have any of your other children received treatment for a speech or language problem? Yes/No

If yes, please provide the following information:

Age of child	**Is this child currently receiving speech or language therapy?**	**Amount of time attending speech or language therapy**
	Yes/No	
	Yes/No	
	Yes/No	
	Yes/No	

8. How long does it take you to travel to the OSU Speech-Language-Hearing Clinic?

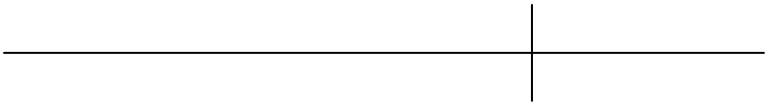
   _____

9. Does your child have an IEP/IFSP? Yes/No

   If so, how often do you attend your child's IEP/IFSP meetings?_____

For the next portion of the survey, you will be given a statement. There is a line below each statement that represents how often that statement describes you. Place a slash mark on the line at the point that you feel best represents your agreement with the statement.
For example:

I enjoy taking my child to speech-language therapy.



Never Sometimes Almost Always

10. I work with my child at home at home on therapy goals.

Never Sometimes Almost Always

11. I see improvement in my child's speech or language while attending treatment.

_____

Never Sometimes Almost Always

12. I work with my child on his/her speech or language goals during therapy sessions.

_____

Never Sometimes Almost Always

13. I discuss my child's speech or language goals with their speech-language clinician.

_____

Never Sometimes Almost Always

14. I discuss my child's speech or language goals with the speech-language clinician's supervisor.

_____

Never Sometimes Almost Always

15. I feel that I am involved in my child's speech or language therapy.

_____

Never Sometimes Almost Always

16. I observe my child's speech or language therapy sessions.

_____

Never Sometimes Almost Always

17. I feel that my child's involvement in speech-language therapy has improved my child's communication abilities.

_____

Never Sometimes Almost Always

18. I know my child's immediate speech-language therapy goals.

Never Sometimes Almost Always

19. I know my child's intermediate speech-language therapy goals.

Never Sometimes Almost Always

20. I know my child's long term speech-language therapy goals.

Never Sometimes Almost Always

21. I attend my child's end of semester speech-language conferences.

Never Sometimes Almost Always

22. I speak with my child's clinician about my concerns for my child's speech-language development.

Never Sometimes Almost Always

23. I speak with the clinician's supervisor about my concerns for my child's speech-language development.

Never Sometimes Almost Always

24. My child's current speech-language therapy goals were explained to me.

Never Sometimes Almost Always

25. I was included in the process of creating my child's speech-language therapy goals.

_____

Never Sometimes Almost Always

26. I had the opportunity to provide input regarding my child's speech-language therapy goals.

_____

Never Sometimes Almost Always

27. I believe the treatment provided in speech-language therapy helps my child interact with family.

_____

Never Sometimes Almost Always

28. I believe the treatment provided in speech or language therapy helps my child interact with his/her peers.

_____

Never Sometimes Almost Always

29. I find the treatment provided in speech or language therapy helps my child interact in other social situations such as community activities or church.

_____

Never Sometimes Almost Always

30. The treatment provided in speech-language therapy has improved my child's daily life.

_____

Never Sometimes Almost Always

31. I do not the goals my child is working on in speech-language therapy.

_____

Never Sometimes Almost Always

32. I participate at home in speech-language activities assigned by the clinician.

_____

Never Sometimes Almost Always

33. My child's clinician sends home speech-language activities for me to work on with my child.

_____

Never Sometimes Almost Always

34. I have received reports from my child's school teacher that my child's speech-language abilities are improving.

_____

Never Sometimes Almost Always

35. I approach my clinician about goals for my child's speech-language therapy.

_____

Never Sometimes Almost Always

36. My clinician approaches me about goals for my child's speech-language therapy.

_____

Never Sometimes Almost Always

37. As a result of speech-language therapy, my child is interacting better with his/her peers.

_____

Never Sometimes Almost Always

38. As a result of speech-language therapy, I have seen changes in my child's speech-language at school.

_____

Never Sometimes Almost Always

39. As a result of speech-language therapy, I have seen changes in my child's speech-language at home.

_____

Never Sometimes Almost Always

40. As a result of speech-language therapy, I have seen changes in my child's speech-language at home.

_____

Never Sometimes Almost Always

41. As a result of speech-language therapy I have seen changes in my child's speech-language in interactions with his/her peers.

_____

Never Sometimes Almost Always

42. I participate in my child's speech-language therapy session every time.

_____

Never Sometimes Almost Always

43. I participate in my child's speech-language therapy session weekly.

_____

Never Sometimes Almost Always

44. I participate in my child's speech-language therapy session monthly.

_____

Never Sometimes Almost Always

45. I participate in my child's speech-language therapy session one time a semester.

_____

Never Sometimes Almost Always

46. I never participate in my child's speech-language therapy sessions.

_____

Never Sometimes Almost Always

47. I work at home with my child on his/her speech-language therapy goals daily.

_____

Never Sometimes Almost Always

48. I work at home with my child on his/her speech-language therapy goals weekly.

_____

Never Sometimes Almost Always

49. I work at home with my child on his/her speech-language therapy goals monthly.

_____

Never Sometimes Almost Always

50. I never work at home with my child on his/her speech-language therapy goals.

_____

Never Sometimes Almost Always

51. I complete assignments provided by my child's speech-language clinician daily.

_____

Never Sometimes Almost Always

52. I complete assignments provided by my child's speech-language clinician weekly.

Never Sometimes Almost Always

53. I complete assignments provided by my child's speech-language clinician monthly.

Never Sometimes Almost Always

54. I never complete assignments provided by my child's speech-language clinician.

Never Sometimes Almost Alwavs

55. I want to participate in my child's speech-language therapy session daily.

Never Sometimes Almost Alwavs

56. I want to participate in my child's speech-language therapy session weekly.

Never Sometimes Almost Alwavs

57. I want to participate in my child's speech-language therapy session monthly.

Never Sometimes Almost Alwavs

58. I want to participate in my child's speech-language therapy session one time a semester.

Never Sometimes Almost Alwavs

59. I rarely want to participate in my child's speech-language therapy sessions.

Never Sometimes Almost Always

60. I want to work at home with my child on his/her speech-language therapy goals daily.

Never Sometimes Almost Always

61. I want to work at home with my child on his/her speech-language therapy goals weekly.

Never Sometimes Almost Always

62. I want to work at home with my child on his/her speech-language therapy goals monthly.

Never Sometimes Almost Always

63. I rarely want to work at home with my child on his/her speech-language therapy goals.

Never Sometimes Almost Always

64. I want to complete assignments provided by my child's speech-language clinician daily.

Never Sometimes Almost Always

65. I want to complete assignments provided by my child's speech-language clinician weekly.

Never Sometimes Almost Always

66. I want to complete assignments provided by my child's speech-language clinician monthly.

Never Sometimes Almost Always

67. I rarely want to complete assignments provided by my child's speech-language clinician.

Never Sometimes Almost Always

68. I believe that participating in speech-language therapy sessions to be helpful for both me and my child.

Never Sometimes Almost Always

69. I believe that working at home on my child's speech-language therapy goals to be helpful for both me and my child.

Never Sometimes Almost Always

70. I believe that completing assignment provided by my child's speech-language clinician to be helpful for both me and my child.

Never Sometimes Almost Always

APPENDIX B

IRB Approval

Oklahoma State University Institutional Review Board

Date:	Tuesday, April 06, 2010
IRB Application No	AS1028
Proposal Title:	Parental Participation in Children's Speech-Language Treatment
Reviewed and Processed as:	Expedited

Status Recommended by Reviewer(s): Approved **Protocol Expires: 4/5/2011**

Principal Investigator(s):

Andrea Ash
042 Murray
Stillwater, OK 74078

Natalie Jo Hurst
042 Murray
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Shelia Kennison, Chair
Institutional Review Board

VITA

Natalie Jo Hurst

Candidate for the Degree of

Master of Science

Thesis: PARENTAL PARTICIPATION IN SPEECH-LANGUAGE THERAPY

Major Field: Communication Sciences and Disorders

Biographical:

Education:
Received Bachelors of Science in Speech and Hearing Sciences at the University of Utah, Salt Lake City, Utah in 2008.

Completed the requirements for the Master of Science in Communication Sciences and Disorders at Oklahoma State University, Stillwater, Oklahoma in 2010.

Experience:
Administered speech, voice, and swallowing evaluations to children and adults and provided subsequent treatment in a medical setting.

Administered speech, language, cognitive, and swallowing evaluations to children and adults ranging in disorder and severity and provided subsequent treatment in a clinic setting.

Presented at American Speech-Language Hearing Association National Conference in 2009.

Professional Memberships:
Member of the National Student Speech-Language Hearing Association since 2008.

Name: Natalie Jo Hurst Date of Degree: July, 2010

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: PARENTAL PARTICIPATION IN SPEECH-LANGUAGE THERAPY

Pages in Study: 48 Candidate for the Degree of Master of Science

Major Field: Communication Sciences and Disorders

Scope and Method of Study:

This study explored parental involvement and factors that may affect parental involvement. Parental involvement has been shown to provide beneficial outcomes when used in conjunction with speech-language therapy. The purpose of this study was to explore factors that may affect parental involvement.

Fifteen parents participated in this study. Parents were administered the Parent Involvement Questionnaire, which was designed for the purpose of this study. This questionnaire was used to interview parents about their involvement in speech-language therapy. Questions looked at parental involvement on three levels: first, the type of initiation; second, the type of input provided by the parent; and third, the frequency of parental involvement in the clinic or at home.

Findings and Conclusions:

Results indicate that parental education level was a substantial factor in parental involvement. Parent education level had significant positive correlations with parent initiation of interaction with clinician and working with the child at home on therapy goals. Also, results indicate that parents are participating in the home far more frequently than in the clinical setting.

ADVISER'S APPROVAL: Dr. Andrea C. Ash